## **SIEMENS**

Data sheet 3RR2241-1FW30



Monitoring relay, can be mounted to Contactor 3RT2, Size S00 standard, digitally adjustable Apparant/active current monitoring 1.6-16 A, 20-400 Hz, 3-phase Supply 24-240 V AC/DC 1 change-over contact, 1 semiconductor output for alarm and warning Monitoring for Current overshoot and undershoot Phase failure, Cable break Phase sequence Residual current Blocking current Warning and alarm thresholds with or without fault buffer ON delay 0-99 s Noise pulse suppression 0-30 s Pause after fault 0-300 min Screw connection system

product brand name	SIRIUS
product designation	Monitoring relays
design of the product	digitally adjustable, 3-phase current monitoring
product type designation	3RR2
General technical data	
size of contactor can be combined company-specific	S00
operating apparent power rated value	4 VA
insulation voltage for overvoltage category III according to IEC 60664	
<ul> <li>with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance rated value	6 kV
consumed current at 24 V	90 mA
protection class IP	
<ul><li>on the front</li></ul>	IP20
<ul><li>of the terminal</li></ul>	IP20
shock resistance	15g / 11 ms
vibration resistance	10 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
reference code according to IEC 81346-2	K
relative repeat accuracy	2 %
Substance Prohibitance (Date)	10/01/2009
Supply voltage	
type of voltage of the supply voltage	AC/DC
supply voltage 1 at AC	
● at 50 Hz	24 240 V
● at 60 Hz	24 240 V
supply voltage 1 at DC	24 240 V
supply voltage frequency 1	50 60 Hz
Measuring circuit	
type of current for monitoring	AC
adjustable current response value current	
• 1	1.6 16 A
• 2	1.6 16 A
adjustable response delay time	
<ul><li>when starting</li></ul>	0 99 s
<ul> <li>with lower or upper limit violation</li> </ul>	0 30 s
adjustable switching hysteresis for measured current value	0.1 3 A
accuracy of digital display	+/-1 digit
Precision	

temperature drift per °C	0.1 %/°C
Short-circuit protection	
design of the fuse link for short-circuit protection of the	fuse gG: 4 A
auxiliary switch required	
Communication/ Protocol	
protocol is supported IO-Link protocol	No
type of voltage supply via input/output link master	No
Auxiliary circuit	
number of CO contacts	
<ul> <li>for auxiliary contacts</li> </ul>	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 230 V	3 A
• at 400 V	3 A
operational current of auxiliary contacts at DC-13  • at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
contact rating of auxiliary contacts according to UL	B300 / R300
Main circuit	
operating power rated value	2.5 W
ampacity of the semiconductor output at AC-14 at 240 V at 50/60 Hz	20 mA
ampacity of the semiconductor output at DC-13 at 240 V	20 mA
ampacity of the semiconductor output in SIO mode	20 mA
operational current at 17 V minimum	5 mA
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	ambience A (industrial sector)
EMC immunity according to IEC 60947-1	ambience A (industrial sector)
Connections/ Terminals	
product component removable terminal for main circuit	No
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• for main contacts	2v /0 F
<ul><li>— solid</li><li>— finely stranded with core end processing</li></ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x (1 4 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	1x 12, 2x (20 14)
connectable conductor cross-section for main contacts	
<ul> <li>solid or stranded</li> </ul>	0.75 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	4. (0.5
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> <li>at AWG cables for auxiliary contacts</li> </ul>	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 2x (20 14)
AWG number as coded connectable conductor cross	28 (20 14) 20 12
section for main contacts	
tightening torque with screw-type terminals	0.8 1.2 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	direct mounting
height	79 mm
width	45 mm
depth	80 mm
required spacing  • with side-by-side mounting	

— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
— at the side	0 mm			
	OTHIN			
• for grounded parts				
— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— at the side	6 mm			
— downwards	0 mm			
for live parts				
— forwards	0 mm			
— backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
— at the side	6 mm			
Ambient conditions				
installation altitude at height above sea level maximum	2 000 m			
ambient temperature				
<ul> <li>during operation</li> </ul>	-25 +60 °C			
<ul> <li>during storage</li> </ul>	-40 +80 °C			
Certificates/ approvals				
General Product Approval		EMC		

**®** 



Confirmation







**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping

other









Confirmation

## **Further information**

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2241-1FW30

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RR2241-1FW30}$ 

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

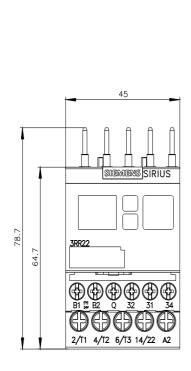
https://support.industry.siemens.com/cs/ww/en/ps/3RR2241-1FW30

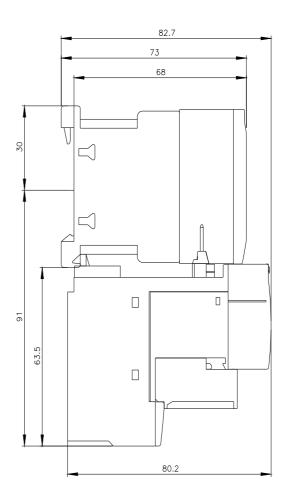
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

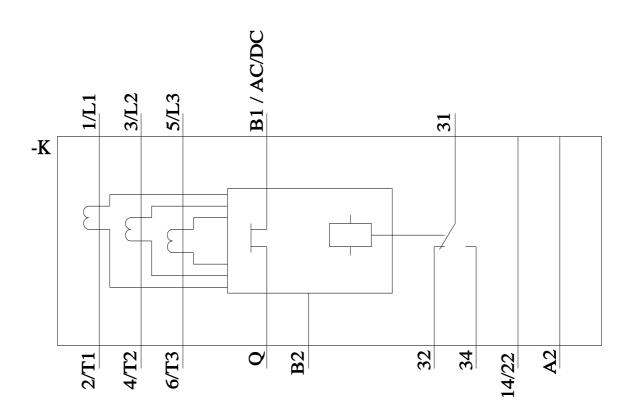
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RR2241-1FW30&lang=en

**Characteristic: Derating** 

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last modified: 8/10/2022 🖸